

**PIEDMONT TRIAD REGIONAL COUNCIL
PLANNING DEPARTMENT
WATER RESOURCES PROGRAM**

REQUEST FOR PROPOSALS

**STORMWATER NUTRIENT LOAD
ACCOUNTING TOOL**

OFFEROR: _____

BID: _____

DATE: _____

SIGNATURE BY PRINCIPAL:

PRINTED NAME: _____

TITLE: _____

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SECTION 1.0: SUMMARY

1.1 REQUEST FOR PROPOSALS

The Piedmont Triad Regional Council (PTRC), Planning Department, Water Resources Program, is hereby seeking qualified Offerors, with proven experience, expertise, and qualification, to submit cost proposals by **Friday April 19, 2013** for development of a tool by September 20, 2013 that can, recognizing a range of developed land cover types, estimate annual nutrient loads associated with stormwater runoff from new and existing development sites based on user-defined land covers and stormwater controls (best management practices or BMPs). The final product of this project will be a site-level tool used to demonstrate compliance with new and existing development nutrient rules in, at minimum, the Jordan Lake and Falls Lake watersheds, one (1) owner manual, and one (1) recorded training session and user's manual. The tool must be developed in a way such that it can be easily updated by the eventual owner, the NC Division of Water Quality (NC DWQ), and can be easily operated by users with varying expertise and skills. The development of the tool must also be supported by one (1), recorded training session for longer-term use in introductory training for the professional lay public. The tool will initially be developed to serve the needs of communities within the Jordan and Falls Lake watersheds, but should be applicable throughout the range of climatic and soil conditions in North Carolina.

1.2 CONTACT FOR MORE INFORMATION

All communications regarding this Request for Proposals may be addressed to the PTRC Water Resources Manager, Cy Stober, at cstober@ptrc.org, or 919-475-7302. Technical questions may be referred to NC DWQ staff. Prospective offerors are encouraged to submit written questions by **12:00pm on Monday, April 8, 2013**, to cstober@ptrc.org. A summary of all questions and answers will be distributed to all offerors by **Thursday April 11th**, via e-mail. The identity of questioners will not be revealed in the summary. **Offerors are responsible for reviewing this addendum to inform their proposals.**

1.3 PERIOD & TERMS OF CONTRACTUAL AGREEMENT

The proposed project must be delivered to the PTRC in draft form by Friday August 9, 2013. A final draft that responds to, and incorporates, comments from PTRC and the NC Division of Water Quality (DWQ), must be delivered to the PTRC by September 20, 2013.

1.4 CONSULTANT SELECTION PROCESS

Interviews may be held on **April 24th and 25th, 2013** Prospective offerors are encouraged to reserve these dates pending contact from PTRC staff. PTRC expects to notify all offerors of its selection during the first week of May 2013.

The Contractor will be selected based upon relevant experience, knowledge, and measurable qualification relevant to the requested deliverable. See Section 7 for rating criteria and weighting.

1.5 DUE DATE

Proposals in response to this Request are due to the PTRC **no later than 4:00 p.m., Friday, April 19, 2013**. Earlier responses are welcome and appreciated.

SECTION 2.0: PROJECT DESCRIPTION

2.1 SUMMARY

Working from a 2012 NC DWQ 205(j) grant, the PTRC requests Offerors to submit cost proposals for delivery of a stormwater nutrient load accounting tool for use by a range of regulators, developers, planners, engineers, and others that retains most of the elements and content of an existing Stormwater Load Accounting Tool (SLAT) (existing tool's user manual [here](#)) while addressing certain refinement needs identified by the agency and the user community. The product may be an amended version of the existing tool, or a replacement tool developed by the Contractor.

In addition, the Contractor will be required to draft a technical owner's manual for NC DWQ staff that details the tool's infrastructure sufficiently to allow for future updates or amendments to any aspects of the tool, including revision of formulas or parameter values based on improved knowledge or modifications to tool operations, functions or format.

Lastly, the Contractor will be required to host and record one (1) training workshop for tool users, as well as a user's manual with directions on how to use the tool. The recorded training will be posted on the internet as a resource that will deliver a step-by-step guide on how to use this tool. The training should be focused toward the wide variety of affected parties that will use this tool.

2.2 BACKGROUND

An MS Excel-based tool, the Jordan/Falls Lake Stormwater Nutrient Load Accounting Tool (JFLSNLAT), was completed in 2010 for purposes of compliance accounting by regulated parties under the Jordan and Falls New Development Stormwater Rules. It allows developers to account for annual stormwater runoff nutrient loading from development lands and loading changes due to BMP implementation. With the support of the NC DWQ, researchers at NC State University's Department of Biological and Agricultural Engineering incorporated valuable scientific advances as well as added functionality into this Simple Method-based tool relative to the tool in use by the Division to that point (User manual can be found [here](#)). The 2003 and 2007 Excel versions of the tool can be found [here](#). Valuable advances incorporated into the JFLSNLAT include:

- Fixed BMP effluent concentrations replacing fixed BMP efficiencies;
- More complete partitioning of, and accounting for flows through BMPs including volume reduction assignments and accounting for treated and untreated portions of annual volume;
- Ability to undersize or oversize practices from a volume reduction standpoint for use in constrained retrofit settings;
- Addition of several BMPs – green roof, water harvesting, permeable pavement and a bioretention variant incorporating internal water storage;
- Expanded, more specific set of land covers incorporating the most current, peer-reviewed and regionally derived event-mean concentrations;
- Statewide tool applicability providing for annual rainfall values by city and accounting BMP volume reduction differences by ecoregion;
- Expanded number of available catchments from 3 to 6 and addition of nested routing of catchments;
- Incorporation of an existing development feature recognizing differences in percent impervious proportions for different ages of residential development under the user option of impervious footprints-unknown residential; and
- Master and Client versions to prevent modifications to fixed values or operations by regulated parties while facilitating review of submitted calculations.

Broader application of the JFLSNLAT tool by a range of users has resulted in identification of a number of refinement interests. While the vast majority of features incorporated and improvements captured in the tool have proven worthwhile, certain needs have been identified.

2.3 TOOL REFINEMENT NEEDS

The contractor will be expected to have a working knowledge of the existing tool, and will be required to have discussions with DWQ, and if needed with NCSU BAE, to clarify interests and options prior to commencing revisions. The revised tool will be expected to retain existing features including all of the above-listed improvements except as noted in the following list of specific refinement interests:

- Include in a project's load calculations the acreages of natural wetland and riparian buffer land covers that exist on a project. Differentiate zones 1 and 2 of protected buffers. Assign forest event mean concentrations to wetland and zone 1 of the buffer, and a managed pervious concentration to zone 2 of the buffer. Remove the option to calculate existing residential development loading based on age of the development;
- Add the ability to use the advanced simple method to calculate runoff and loading while retaining the existing design using the original simple method.
- Make the tools' supporting calculations or code(s) readily available in a transparent manner to the final tool users and administrators;
- Provide for simpler, more transparent and guided means for the tool owners to make revisions as needed in future to any aspects of the tool, including the ability to add BMPs.
- Provide the ability to base BMP volume reduction assignments on the hydrologic soil group with minimal intervention.
- Provide the ability to incorporate NCSU BAE's BMP diversification studies' findings with minimal intervention. Please see the Bioretention Hydrologic Performance (HyPer) Model on NCSU BAE's webpage [here](#). Incorporate recent DWQ revisions to crediting of permeable pavement.
- Add a BMP option for floating wetlands.
- Review and correct as needed the logic related to routing of serial BMPs into another catchment;
- Review and correct as needed the logic related to the calculation of overflow partitioning with the use of serial BMPs.
- Remedy inconsistencies in the calculation that applies a mixture of road impervious and total road right-of-way event mean concentrations to total road right-of-way acreage.
- Consider simpler, more regulator-friendly alternatives to the master-client versions framework for protecting the tool from inappropriate revisions by users.
- To the extent possible, improve user-friendliness of the tool formatting, for example:
 - More legible text where extremely small or obscured;
 - Flexibility in print selection or a concise print option of summary information.

2.4 PARTIES AND ROLES

Three (3) entities will have roles in the project. The roles of these three parties are briefly described here:

Piedmont Triad Regional Council (PTRC): The contract administrator for this project. The subcontractor will report directly to the PTRC and invoice them for all approved expenses on behalf of this project. PTRC will coordinate the technical input and review activities of DWQ and NSAB subcommittees that will be engaged with the project.

Division of Water Quality: Division Planning staff are the content lead for the project and will have final determination on any content issues. The Division holds the grant contract with PTRC of which this proposal will be a subcontract. Division Planning staff are responsible for using the products of the proposed project to meet regulatory requirements, specifically to provide nutrient credit accounting tools to the NC Environmental Management Commission for approval and subsequent use by entities subject to the Jordan and Falls existing

development regulatory requirements. The Division however wants to ensure that tools are supported by external subject matter experts and meet the needs of affected parties, and will utilize NSAB subcommittee(s) to provide input and reviews to the contractor for this project.

Nutrient Scientific Advisory Board (NSAB) BMP Subcommittee: The NSAB is providing the NC DWQ with support and input on behalf of nutrient management stakeholders. The NSAB is made up of the stormwater staff from several local governments, the NCDOT, a scientist, a professional engineer, and an environmentalist. Some of the members will be using the tools to meet Nutrient Strategy requirements. The subcommittee will provide the Contractor with feedback and guidance in order to ensure usability by and compatibility of the tool with other development concerns of end-users. To the extent that the subcommittee lacks expertise on a given measure, e.g. the septic system measures, it will recruit external subject matter experts to participate in providing feedback and reviews. For the septic elements, it is expected that Division of Public Health staff and local health department staff will participate.

SECTION 3.0: SCOPE OF CONSULTANT SERVICES

The Scope of services for this project, as currently envisioned by the PTRC, shall generally follow the tasks outlined below. The final scope of services may be negotiated with the selected Contractor.

3.1 TOOL SELECTION

Based upon the tool description in section 2.0 and conversations with NC DWQ, & the NSAB, the Contractor shall propose a software-based tool for users with varying skill-levels and expertise. The tool should be Excel-based, or some other readily available software that can be easily operated by its many users. Selection shall be based upon relevant data for application of practices in North Carolina, time and financial challenges of developing the best possible tool, and the ability to amend the tool in the future. Given the relatively short time frame of the proposed project, the practical constraints to developing the optimal tool will be a consideration by all involved parties.

3.2 TOOL DEVELOPMENT

The Contractor shall deliver a user-friendly tool that emulates North Carolina landscape conditions to estimate stormwater runoff annual mass nutrient loading from new or existing developments to receiving waters. The tool will build on JFLSNLAT in many ways, and serve the same overall purposes, while also addressing the aforementioned refinement needs. Use of Microsoft Excel as the software platform is not necessary for tool development, though the final tool must be equally, if not more, accessible to the likely users. The tool shall be reviewed by the NC DWQ staff and the NSAB, and the final version of the tool will address all of the concerns and comments of the staff that it can reasonably within the time allotted to the Contractor.

3.3 OWNER'S MANUAL

The Contractor shall develop a written reference manual for the NC DWQ staff on accessing all parts of the tool's software and making revisions to any elements, particularly those identified in Section 2 as future interests. No parts of the tool shall be proprietary to the Contractor, and all parts of the software and code will be accessible to NC DWQ staff. The manual shall detail how to unlock any locked parts of the tool. Fundamentally, the NC DWQ will be assured that they can amend the tool for the purposes of improving it in the future.

3.4 NEW USERS TRAINING WORKSHOP & USER'S MANUAL

The Contractor shall host one (1) training for new users of the new tool. This training shall be an iterative guide for new users on how to use the tool for both new development and existing development situations, and shall demonstrate the tool's use to minimize nutrient loading to receiving waters. This training will be recorded for future use by all new users of the tool. The Contractor shall not be responsible for ensuring the training is available for these future users, just to provide it in a format (a video recording, a recorded webinar, etc.) that the NC DWQ can distribute to all new users. The training will be accompanied by an update or replacement to the existing user's manual for the existing tool. This manual will address the transparency concerns identified in Section 2, providing explanations of the formulas, logic, assumptions, objectives and limitations of the various elements comprising the tool. The user's manual shall be an editable document using MS software.

SECTION 4.0: SCHEDULE OF PERFORMANCE

The schedule will be negotiable between the PTRC and the Contractor, especially as it relates to meetings with the PTRC to determine project progress. However, the Contractor shall be required to:

- Attend the May 3, 2013, and September 6, 2013, Nutrient Scientific Advisory Board meetings;
- Frequent informal updates and conversations with DWQ and the NSAB Subcommittee;
- Deliver a draft technical report to the PTRC by August 9, 2013; and
- Deliver a final draft technical report to the PTRC by September 20, 2013, that incorporates responses to comments from the PTRC, NC DWQ, and NSAB.

SECTION 5.0: INSURANCE**5.1 INSURANCE**

During the term of the contract, the contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the contract. As a minimum, the contractor shall provide and maintain the following coverage and limits:

- a. Worker's Compensation - The contractor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$150,000.00, covering all of Contractor's employees who are engaged in any work under the contract. If any work is subcontracted, the contractor shall require the subcontractor to provide the same coverage for any of its employees engaged in any work under the contract.
- b. Commercial General Liability - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of \$500,000.00 Combined Single Limit. (Defense cost shall be in excess of the limit of liability.
- c. Automobile - Automobile Liability Insurance, to include liability coverage, covering all owned, hired and non-owned vehicles, used in connection with the contract. The minimum combined single limit shall be \$150,000.00 bodily injury and property damage; \$150,000.00 uninsured/under insured motorist, and \$1,000.00 medical payment.

Providing and maintaining adequate insurance coverage is a material obligation of the contractor and is of the essence of this contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The contractor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the contractor shall not be interpreted as limiting the contractor's liability and obligations under the contract. The Department may require a copy of a current insurance certificate at any time during the contract period.

SECTION 6.0: PROPOSAL REQUIREMENTS

6.1 GENERAL

Please submit one original and three copies of your Proposal, including proposed cost(s), in a sealed envelope or package, to be received by the PTRC **no later than 4:00 PM, Friday, April 19, 2013**, to the attention of:

**Cy Stober
Water Resources Manager
Piedmont Triad Regional Council
2216 West Meadowview Road
Suite 201
Greensboro, NC 27407**

Electronic submissions in .pdf format may be submitted to cstober@ptrc.org. Early submission of Proposals is welcome and appreciated.

In the interest of fairness to all the Offerors submitting Proposals and to allow for the PTRC's timely review, Proposals received after the scheduled receipt time stated above will not be accepted and will be marked "LATE". All Proposals received become the property of the PTRC and will not be returned.

6.2 PROPOSAL ORGANIZATION

To facilitate the City's objective review of the Proposals from different Offerors, Proposals are requested to organize the main document using a standardized format containing the following:

- A cover letter on company letterhead signed by a Principal or other member of the firm authorized to commit the firm to contract for professional services.
- Table of Contents, with page numbers
- Information on the following topics:

Executive Summary: Should address the highlights of the proposal, along with the strengths and special expertise of the firm and the associated team to successfully accomplish the objectives of the PTRC. Please limit the Executive Summary to one page.

Statement of Qualifications: Identify and describe the qualifications of the firm and professional services that may be provided by the Offeror and its team in response to this Request. Also include information on any proposed sub-consultants. Please note which team members were involved in referenced projects. Please include an approximate dollar amount (professional service fee and construction cost, if applicable) and time period involved in referenced completed or current projects. Also highlight any projects performed during the past 3 years that directly relate to the proposed project.

Project Team & Project Management: Please identify the proposed project team (including any subconsultants) and key personnel for the successful completion of projects relevant to this technical report. Please include brief resumes of the project team members. Also, please identify the project manager or project managers and any other team leaders proposed, and briefly describe how projects will be successfully managed. It is expected that the team members identified in the Proposal will be the ones that will actually work on projects for the PTRC. Describe the planned and envisioned workload of the proposed team members for the timeframe of this contract, and verify that proposed staff will be prepared for timely completion of projects under a potential contractual agreement with the PTRC. Also describe your quality control methods.

Proposed Approach: Describe the logistical and content approach for either amending the existing tool or developing a new tool to serve the needs of this project, and provide the proposed cost for these services. Please discuss the bases for selecting the proposed methodology and how this approach will deliver upon the stated needs of this request. If utilizing a new software platform for tool development, please discuss your rationale for selecting that platform. It will be necessary to ensure that the tool will have an accessible user interface, be easily editable by the NC DWQ beyond the scope of this project, and reliably deliver a stormwater nutrient management tool for project stakeholders.

References: Please provide the name, telephone number, and address of at least three references in organizations for whom your firm provided professional services on projects similar to this Request and whom the PTRC may contact regarding your firm's performance on their projects.

If the Offeror wishes to submit additional information in support of or to strengthen the Proposal, such information may be submitted separately in Appendices. **Proposals must be limited to no more than 25 pages, excluding the cover page, cover letter, table of contents, resumes, and section dividers**

SECTION 7.0: SELECTION OF CONSULTANT/CONTRACTOR

7.1 GENERAL

This Request does not commit the PTRC to enter into agreement, to pay any costs incurred in the preparation and submittal of a proposal in response to this request or in subsequent interviews and negotiations, or to procure a contract for the project. The PTRC will require the selected Contractor, if any, to participate in negotiations of the fees for the project and to submit such scope, technical and/or other revisions to the proposals as may result from negotiations. The PTRC reserves the right to perform all or some of the services described in this document with its own work force. The PTRC also reserves the right to issue future Request For Proposal (RFP) and solicit responses from firms not selected as part of this process.

7.2 CONSULTANT SELECTION CRITERIA

Reviewers will use the following selection criteria and associated weightings to rate candidates' proposals:

- Cost (25%)
- Project management and content approach, including proposed methods to deliver requested tool (25%);
- Experience, specifically relevant to the proposed project and the field of applied research on which the project will be based (20%);
- Team member(s) qualifications (15%);
- Past performance, with references (10%);
- Other determinants selected by the review panel (5%).

7.3 POSSIBLE POST-PROPOSAL INTERVIEW

An interview may be offered to select offerors upon the review and opinion of the review panel. Interviews may be held **April 24th and 25th**. Offerors are encouraged to reserve these dates pending notification from PTRC. Notification will be provided as early as possible. In-person attendance is preferred to a teleconference, but both methods are permissible. Interview findings will be considered when reviewing an offeror's proposal. Failure to interview for the proposed project may eliminate consideration of an offeror's proposal for the request.

7.5 SCHEDULE FOR SELECTION

All firms submitting proposals will be notified in writing as to the outcome of the process. Selections will likely be made by **Wednesday, May 1, 2013**.